

# Emerson delivers ahead of schedule as Sakhalin-1 MICC

**E**merson Process Management is focused on helping ExxonMobil achieve operational excellence through industrial automation and information solutions.

Following its successful efforts on the major Kizomba projects for ExxonMobil offshore Angola, Emerson Process Management was awarded the role of Main Instrument and Controls Contractor (MICC) for the Sakhalin-1 project.

## Project description

The scope of the work covered the Orlan offshore platform, the onshore processing facility (OPF) at Chayvo on Sakhalin Island, pipeline valve stations, and the oil-export terminal and tanker-loading buoy at De-Kastri in the Khabarovsk Krai on the Russian mainland.

Emerson's involvement extended from front-end-engineering design through detailed engineering, construction, hookup, commissioning and start-up.

Emerson's PlantWeb® digital architecture was used for process automation.

Each of the work sites has a stand-alone control system with a subset of data and signals being passed between the sites. Additionally each system provides data to business applications implemented by Exxon Neftegas Limited (ENL), the project operator.

Connectivity was accomplished via this open, interoperable digital architecture. Safety systems and other suppliers' equipment were integrated by using the



Emerson/ENL team members perform critical loop and safety-system checks.



Emerson's advanced DeltaV technology and expertise were key to OPF-module system integration.

networking features of the well-proven DeltaV™ digital automation system with the DeltaV PI Historian interface.

## Execution

The project was executed by multiple Emerson teams on Sakhalin Island and in Houston; Calgary; Ulsan, South Korea; and De-Kastri.

A variety of Emerson technology and expertise was involved in the project. Emerson's Hydrocarbon and Energy Center in Calgary provided MICC oversight, including project management, procurement, engineering and commissioning. The company's PlantWeb architecture featured the DeltaV system, networked with Rosemount® transmitters, Daniel® flowmeters and Fisher® valves with FIELDVUE® digital valve controllers. METCO Services Limited provided measurement engineering and commissioning services. Emerson's local business partner, Puffer-Sweiven (Houston), also contributed to the project.

## Smooth start-up

Despite the challenges posed by Sakhalin's remote location and sub-Arctic climate, Emerson was able to deliver the project ahead of schedule. The start-up of the OPF was one of the smoothest the start-up team had seen.

Emerson is now engaged in long-term support of the Sakhalin-1 facilities via its Moscow and Yuzhno-Sakhalinsk offices.

The expertise and technologies of Emerson continue to be focused on integrating solutions that enable companies to operate with improved safety, environmental performance and operational excellence.



## Emerson Process Management

Canada  
Hydrocarbon and Energy Industry Center  
7175 12th Street SE  
Calgary, Alberta T2H 2S6  
Phone: (403) 258-6200  
Fax: (403) 258-6201

U.S.A.  
12301 Research Blvd.  
Research Park Plaza, Building III  
Austin, TX 78759 USA  
Phone: (512) 835-2190  
Fax: (512) 832-3443

E-mail: [HEIC-CGY.Sales@EmersonProcess.com](mailto:HEIC-CGY.Sales@EmersonProcess.com)  
Web site: [EmersonProcess.com](http://EmersonProcess.com)